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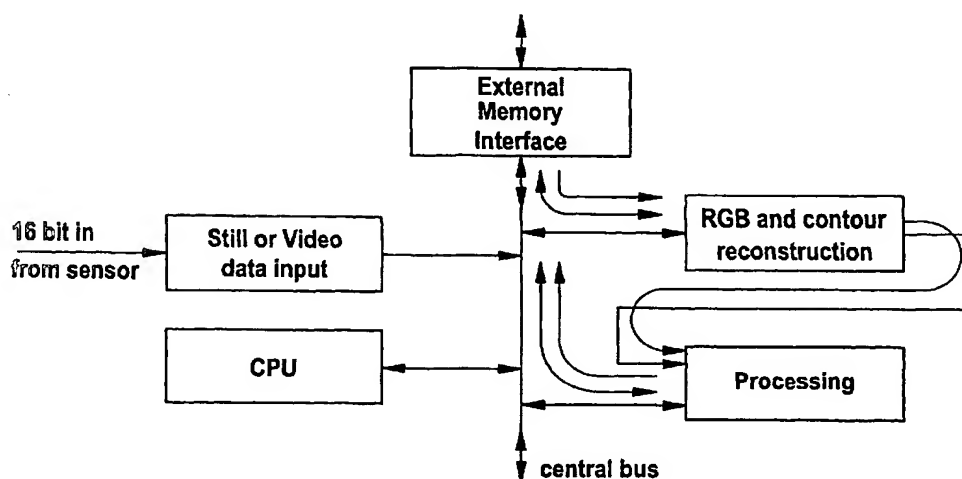
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(54) Title: METHOD AND APPARATUS FOR SIGNAL PROCESSING, COMPUTER PROGRAM PRODUCT, COMPUTING SYSTEM AND CAMERA



(57) Abstract: A reconstruction method based on a white-compensated luminance-reconstruction and using filter weights referred to as smartgreen-parameters is proposed. An aliasing free luminance signal, even at the multiples of the sample frequency and in case of a camera without optical low pass filter is achieved. Moreover this white-compensated-luminance-signal is free of signal distortion. The proposed method allows a suitable low pass filter to be added or combined and is particular well suited to implement a variety of aliasing free color- and contour-filters. The RGB color signals are reconstructed using filter weights that can be chosen as a function of the heaviness of the sensor matrix and of the optical transfer of the camera. The reconstructed RGB signals may still further be improved with regard to colored aliasing according to the Nyquist-theorem. A false-color-filter is implemented in a color-reconstruction-filter and applied to eliminate false colors and in order to reduce the amount of color aliasing. Also a development is proposed for low cost applications.